#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 7 October 2004 (07.10.2004)

**PCT** 

# (10) International Publication Number WO 2004/086255 A1

(51) International Patent Classification<sup>7</sup>:

G06F 17/30

(21) International Application Number:

PCT/GB2004/000744

- (22) International Filing Date: 24 February 2004 (24.02.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0306877.2

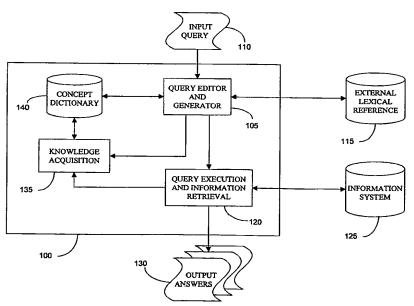
25 March 2003 (25.03.2003) GB

- (71) Applicant (for all designated States except US): BRITISH TELECOMMUNICATIONS PUBLIC LIMITED COMPANY [GB/GB]; 81 Newgate Street, London, Greater London EC1A 7AJ (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): MARTIN, Trevor, Philip [GB/GB]; 86 High Street, Cam, Dursley, Gloucestershire GL11 5LH (GB). AZVINE, Behnam [GB/GB]; 6 Dodson Vale, Kesgrave, Suffolk IP5 2GT (GB).

- (74) Agent: LLOYD, Barry, George, William; BT Group Legal Intellectual Property Department, PP C5A, BT Centre, 81 Newgate Street, London, Greater London EC1A 7AJ (GB).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

### (54) Title: CONCEPT DICTIONARY BASED INFORMATION RETRIEVAL



(57) Abstract: A method and apparatus are provided for generating and updating a concept dictionary (140) in respect of an information system (125) and for using that concept dictionary to assist in selecting queries and query terms for use in interrogating that information system (125). A lexical reference source (115) is first used to generate queries semantically related to a query (110) entered by a user, and the answers returned for each query are analysed using a fuzzy processing technique (135) to determine semantic relationships between the queries. The queries and the determined relationships are recorded in a concept dictionary (140) for subsequent use.



## WO 2004/086255 A1



#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.